

SWR-0056

IN THE CLAIMS

Please cancel claims 1-14 without prejudice.

Please amend claim 15 as presented below in rewritten "clean" format:

15. (amended twice) A neutron absorption device, comprising:
an inorganic base material; and
a layer disposed at said inorganic base material, said layer being composed of an element having a high neutron capture cross-section of more than 20% by volume and an electrolytically precipitable metallic element.

Please add the following new claims 16-25 as presented below:

16. (new) The neutron adsorption device of claim 15, wherein said element having said high neutron capture cross-section is an electrically conductive compound.

17. (new) The neutron adsorption device of claim 16, wherein said electrically conductive compound is a metallic compound.

18. (new) The neutron adsorption device of claim 17, wherein said electrically conductive compound is a metal boride.

19. (new) The neutron adsorption device of claim 15, wherein said element having said high neutron capture cross-section is in the form of an isotope having an augmented neutron capture cross-section.
B¹⁰ or B¹¹

20. (new) The neutron adsorption device of claim 15, wherein said element having said high neutron capture cross-section is an element selected from the group consisting of boron, gadolinium, cadmium, samarium, europium, and dysprosium.

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21. (new) The neutron adsorption device of claim 15, wherein said electrolytically precipitable metallic element is an element selected from the group consisting of nickel, cadmium, and copper.

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22. (new) The neutron adsorption device of claim 15, wherein a thickness of said layer is up to 800 micrometers.

23. (new) The neutron adsorption device of claim 15, wherein said element having said high neutron capture cross-section is embedded in a metal matrix.

24. (new) The neutron adsorption device of claim 23, wherein a concentration of said element having said high neutron capture cross-section embedded in said metal matrix is up to about 60%.

BY VOLUME

*APPLIES TO
NICKEL
ONLY*

25. (new) The neutron adsorption device of claim 15, wherein said inorganic base material comprises a shielding element having a predefined surface.